

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of May 28, 2008 is respectfully requested.

The specification has now been reviewed and revised in order to make various editorial corrections as indicated above. However, no new matter has been added. Therefore, the Examiner is respectfully requested to enter the amendments to the specification.

The Examiner rejected original claims 9 and 26 under 35 USC § 112, second paragraph, as being indefinite. In particular, the Examiner asserted that it was not clear from the claims which combustion chamber is being referred to. As noted above, original claim 26 has been cancelled. Furthermore, original dependent claims 8 and 9 have now been amended to clarify the subject matter recited therein. In view of these amendments, it is respectfully submitted that the Examiner's formal rejection of claim 9 has been overcome.

On page 9 of the Office Action, the Examiner indicated that claim 11 contains allowable subject matter. Therefore, claim 11 has now been amended so as to be placed into independent form including all of the subject matter of original base independent claim 1. In view of the Examiner's indication of allowable subject matter, it is respectfully submitted that amended independent claim 11 is now in condition for allowance.

The Examiner rejected original independent claim 1 and several of the dependent claims as being anticipated by the JP '071 reference (Japanese publication 2000-328071); and rejected the remaining dependent claims as being unpatentable over the JP '071 reference in combination with one or more of the WO '966 reference (WO 02051966), the EP '150 reference (EP 1030150A1), the Fujiu reference (USP 4,231,303), the Fujinami reference (USP 6,283,048), and the Hamilton reference (USP 4,411,204). However, the original claims have now been amended as indicated above so as to clarify the distinctions between the present invention and the prior art. For the reasons discussed below, it is respectfully submitted that the amended claims are clearly patentable over the prior art of record.

The present invention is generally directed to a gasification system in which combustion gas discharged from a combustion furnace is returned to a gasification furnace and the combustion furnace, so that exhaust gas (i.e., combustion gas) is not released to the atmosphere. Thus, pollution of the atmosphere is eliminated, and the gasification system does not need any chimneys or exhaust treatment systems. However, depending on the type of waste material being treated by the gasification system, the amount of combustion gas necessary to be supplied as a

fluidizing gas to the gasification furnace and the combustion furnace will vary. The present invention as recited in amended independent claim 1 addresses this need.

In particular, amended independent claim 1 is now directed to a gasification system that comprises a *combustion gas adjustment unit* for adjusting a volume of the combustion gas to be returned to the gasification furnace and the combustion furnace via a return line *by cooling the combustion gas discharged from the combustion furnace* (see page 9, line 20 through page 11, line 13 of the original specification). As a result, if waste material to be treated by the gasification system has a low heating value, for example, the combustion gas adjustment unit can cool the combustion gas so as to condense moisture therein to thereby reduce the volume of the combustion gas. Thus, the concentration of the combustible gas is increased to improve gasification of the waste material with the low heating values.

The JP '071 reference is directed to a process for recycling gas, and the Examiner asserted that this reference teaches a return line 11 for returning a combustion gas discharged from a combustion furnace to a gasification furnace and the combustion furnace. However, the JP '071 reference does not teach or suggest a combustion gas adjustment unit for adjusting a volume of the combustion gas to be returned to the gasification furnace and the combustion furnace via the return line by cooling the combustion gas discharged from the combustion furnace, as now recited in amended independent claim 1. Thus, it is submitted that the JP '071 reference clearly does not anticipate or even render obvious amended independent claim 1.

The Examiner asserted that the Fujinami reference teaches a water spray gas cooler for spraying water on combustion gas “for the purpose of cooling the slag.” In particular, as shown in Figure 4 of the Fujinami reference, spray nozzles 30 are provided at a throat 24 located between a combustion chamber 6 and a slag separation chamber 7. As explained in column 10, lines 4-24 of the Fujinami reference, the spray nozzles 30 spray cooling water into the gas and slag that passes through a guide tube 17 before the gas and the slag are blown into water in the water tank 9 and quenched. Although the Fujinami does, indeed, teach that the water spray gas cooler sprays water on combustion gas “for the purpose of cooling the slag” as noted by the Examiner, the Fujinami reference provides no apparent reason to modify a gasification system such as that in the JP '071 reference so as to provide a combustion gas adjustment unit for adjusting a volume of combustion gas to be returned to a gasification furnace and a combustion furnace via a return line by cooling the combustion gas discharged from the combustion furnace, as now recited in amended independent claim 1.

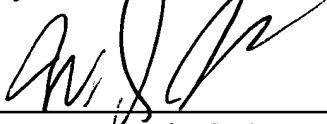
The Hamilton reference teaches a method in which combustion air is heated in a heat exchanger by flue gases from a furnace 10 (see Figure 1). However, as explained in column 3, line 1 through column 4, line 5 of the Hamilton reference, the flue gases which pass through the heat exchanger 20 to heat the combustion air are simply filtered through a particulate collector 22 before being passed into the atmosphere via a stack 26. Thus, the Hamilton reference also does not provide any apparent reason to modify a gasification system such as that in the JP '071 reference so as to provide a combustion gas adjustment unit for adjusting a volume of the combustion gas to be returned to the gasification furnace and the combustion furnace via a return line by cooling the combustion gas discharged from the combustion furnace, as recited in amended independent claim 1.

The remaining references of record also do not teach or even suggest any reason for providing a combustion gas adjustment unit arranged as recited in amended independent claim 1. Therefore, it is submitted that the combination of references applied by the Examiner provides no reason for one of ordinary skill in the art to obtain the gasification system as now recited in amended independent claim 1. Accordingly, it is respectfully submitted that amended independent claim 1 and the claims that depend therefrom are clearly patentable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicant's undersigned representative.

Respectfully submitted,

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